

Work Order ID 85361

June-06-12 4:23:08 PM

85361

Page 1

Item ID: D206-642-541

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Replacement Skidtube

Stop

NS2

Start Date: 06/06/2012 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 15/06/2012 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/06/07 Tooling:

Date:

Run Start

NR1

QC:

Date: SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3274	D								
100		0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Document Control	Photocopy bluefile & type labels per PPP D206-642-541		CHG003						

N/A D

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS											
			Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Use-as-is <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Machining <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Composite <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Supplier <input type="checkbox"/>	Engineering Quality <input type="checkbox"/>
Part No. _____			Work Order Update <input type="checkbox"/>														
NCR No. _____																	
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description			Sign & Date	Verification	QC Inspector					
Doc/Data																	
Equip/Tooling																	
Operator																	
Material																	
Offset/Setup																	
Other																	
Process																	
Supplier																	
Training																	
Unauthorized																	
FAULT CATEGORY																	
Landing Gear <input type="checkbox"/> Bending Passes Below Min <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimp at Bending <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Other <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Ripples on Inner Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				Hardware <input type="checkbox"/> Breaking <input type="checkbox"/> Missing <input type="checkbox"/> Size/Length <input type="checkbox"/> Spinning <input type="checkbox"/> Threading <input type="checkbox"/> Wrong			Drill Holes <input type="checkbox"/> Misaligned <input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Undersized <input type="checkbox"/> Too Many			General <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Documentation/Data <input type="checkbox"/> Finish <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Inspection Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Jigs/Fixtures/Tooling <input type="checkbox"/> Kit Incorrect <input type="checkbox"/> Kit Missing							
										<input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Off-Set <input type="checkbox"/> Orientation Misread <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Lost <input type="checkbox"/> Part Moved <input type="checkbox"/> Raw Material							
										<input type="checkbox"/> Set-up <input type="checkbox"/> Supplier <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled							
										<input type="checkbox"/> Other							

Work Order ID 85361

85361

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Page 2

Item ID: D206-642-541

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Replacement Skidtube

Stop

NS2

Start Date: 06/06/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 15/06/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	Skidtubes	0.00							

110

Skidtubes

Memo

0.00

****VERIFY AND INSPECT THE MATERIAL PRIOR TO USE****

1- Bend FWD end of tube using bend prog D3274 FWD and foilo 10 as per dwg D3274, cut fwd end of tube with saw table setup D3274.

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding

CT 12-7-13

3- weld fwd cap as per dwg D3274 and QSI004
AR Aluminum Rod Batch: m120164

4- grind fwd cap weld on top surface only

3 BE 1207-16

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.

6-Drill Aft cap pilot hole using DT8025

7 -Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D.
Drill 3/16" pilot holes as per Dwg D3274

8 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe
batch #

9 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

De 12/02/16

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Use-as-is <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Engineering Quality <input type="checkbox"/>		
Part No. _____			Machining <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Supplier <input type="checkbox"/>		
NCR No. _____			Work Order Update <input type="checkbox"/>	Composite <input type="checkbox"/>	Other <input type="checkbox"/>						
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Offset/Setup											
Other											
Process											
Supplier											
Training											
Unauthorized											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending Passes Below Min <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimp at Bending <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Other <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Ripples on Inner Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				Hardware <input type="checkbox"/> Breaking <input type="checkbox"/> Missing <input type="checkbox"/> Size/Length <input type="checkbox"/> Spinning <input type="checkbox"/> Threading <input type="checkbox"/> Wrong Drill Holes <input type="checkbox"/> Misaligned <input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Undersized <input type="checkbox"/> Too Many		General <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Documentation/Data <input type="checkbox"/> Finish <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Inspection Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Jigs/Fixtures/Tooling <input type="checkbox"/> Kit Incorrect <input type="checkbox"/> Kit Missing				<input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Off-Set <input type="checkbox"/> Orientation Misread <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Lost <input type="checkbox"/> Part Moved <input type="checkbox"/> Raw Material	
										<input type="checkbox"/> Set-up <input type="checkbox"/> Supplier <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other	

Work Order ID 85361

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Page 3

Item ID: D206-642-541

Accepted

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Replacement Skidtube

Stop

NS2

Start Date: 06/06/2012 **Start Qty:** 1.00

1

Cust Item ID

Required Date: 15/06/2012 **Req'd Qty:** 1.00

1

Customer:

Reference:

Approvals: Process Plan:

Date: _____ Tooling:

Teorijski

Date:

Run Start

NR1

86:

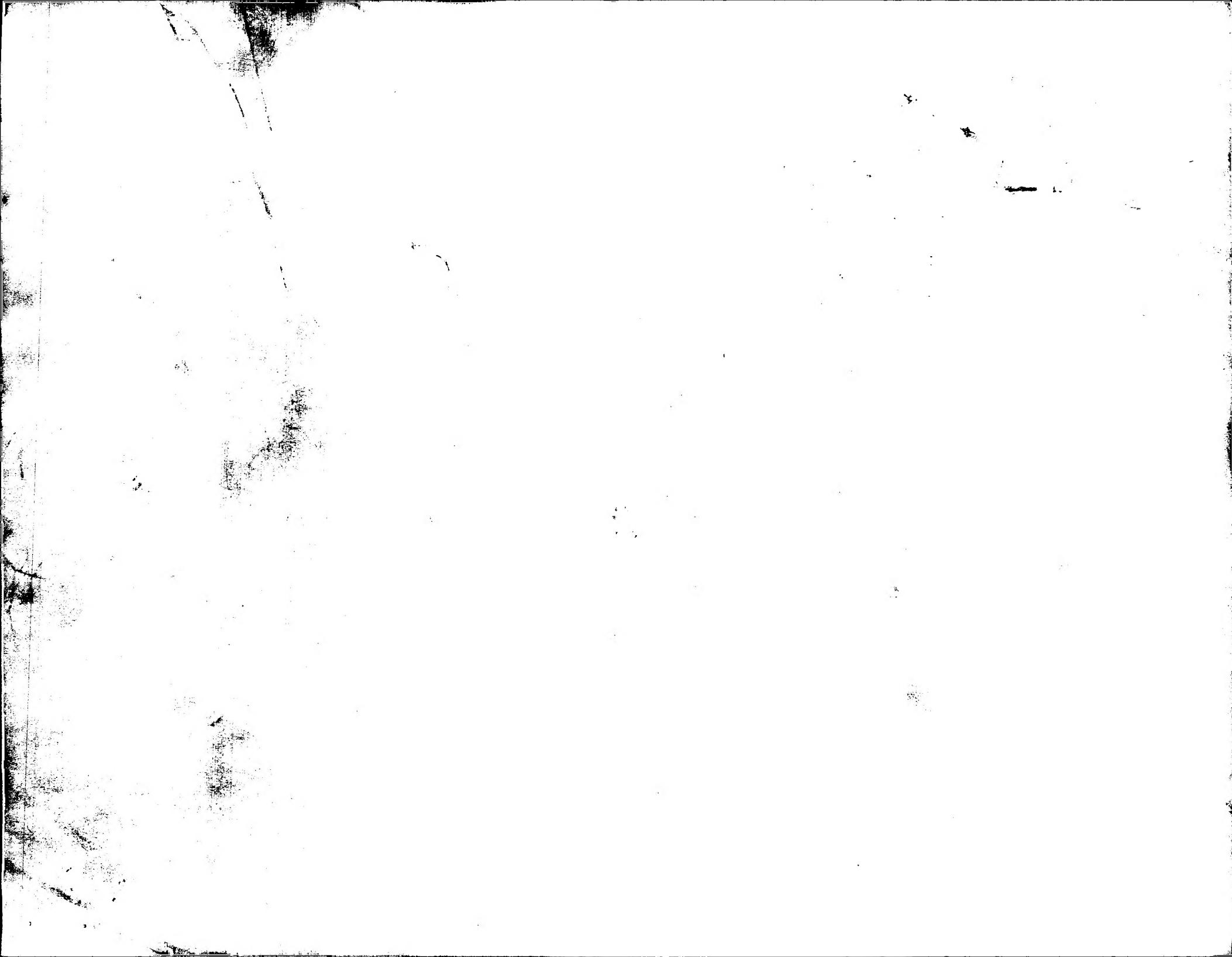
Date: _____ SPC CV/NP

SPC (V/N)

B-4

Stop

NR2



Work Order ID 85361

June-06-12 4:23:08 PM

85361

Page 4

Item ID: D206-642-541

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Replacement Skidtube

Stop

NS2Start Date: 06/06/2012 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 15/06/2012 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:		Stop	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC Quality Control	QC7-Inspect Chemical Conversion Coat Memo	0.00 0.00							DP 12-7-17

150
150
Skidtubes

Memo 0.00
1-Open Ø0.313" and 0.375" crossbolt spacer holes as per Dwg D3274

2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from
inside the tube

3-Bond web in place as per Dwg D3274 & QSI 015.

A/RSikaflex-291 / ~~12/07/12~~ / ~~12/07/12~~

Sikaflex expire date: ~~12/07/12~~

Start: 12/07/12 Time: 10:05

Finish: 12/07/12 Time: 11:00

(Adhere for 12 hours)

M122130

13-4-14

DC-12-7-17

31.2

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Item ID: D206-642-541

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Replacement Skidtube

Stop

NS2

Start Date: 06/06/2012 **Start Qty:** 1.00

1

Cust Item ID:

Required Date: 15/06/2012 **Req'd Qty:** 1.00

1

Customer:

Reference:

Approvals:	Process Plan: _____	Date: _____	Tooling: _____	Date: _____	Run	Start	*NR1*
	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____		Stop	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160* QC	QC5- Inspect part completeness to step on W/O Memo	0.00							DP 12-7-18
Quality Control									

170

170

Skidtubes

Skidtubes

Memo 0.00

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-1T2
OPEN HOLES TO .297". Deburr

3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT8935 FWD
END OF TUBE

DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

→ CF 12-7-18

De 12/07/19

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Item ID: D206-642-541

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Replacement Skidtube

Stop

NS2Start Date: 06/06/2012 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 15/06/2012 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
						Stop	*NR2*
	QC:	Date:	SPC (Y/N):	Date:			

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 *180* QC Quality Control	QC5- Inspect part completeness to step on W/O	0.00 <i>3.0</i> <i>4.6</i>				/	0	12/7/25	DAS 18 6-69

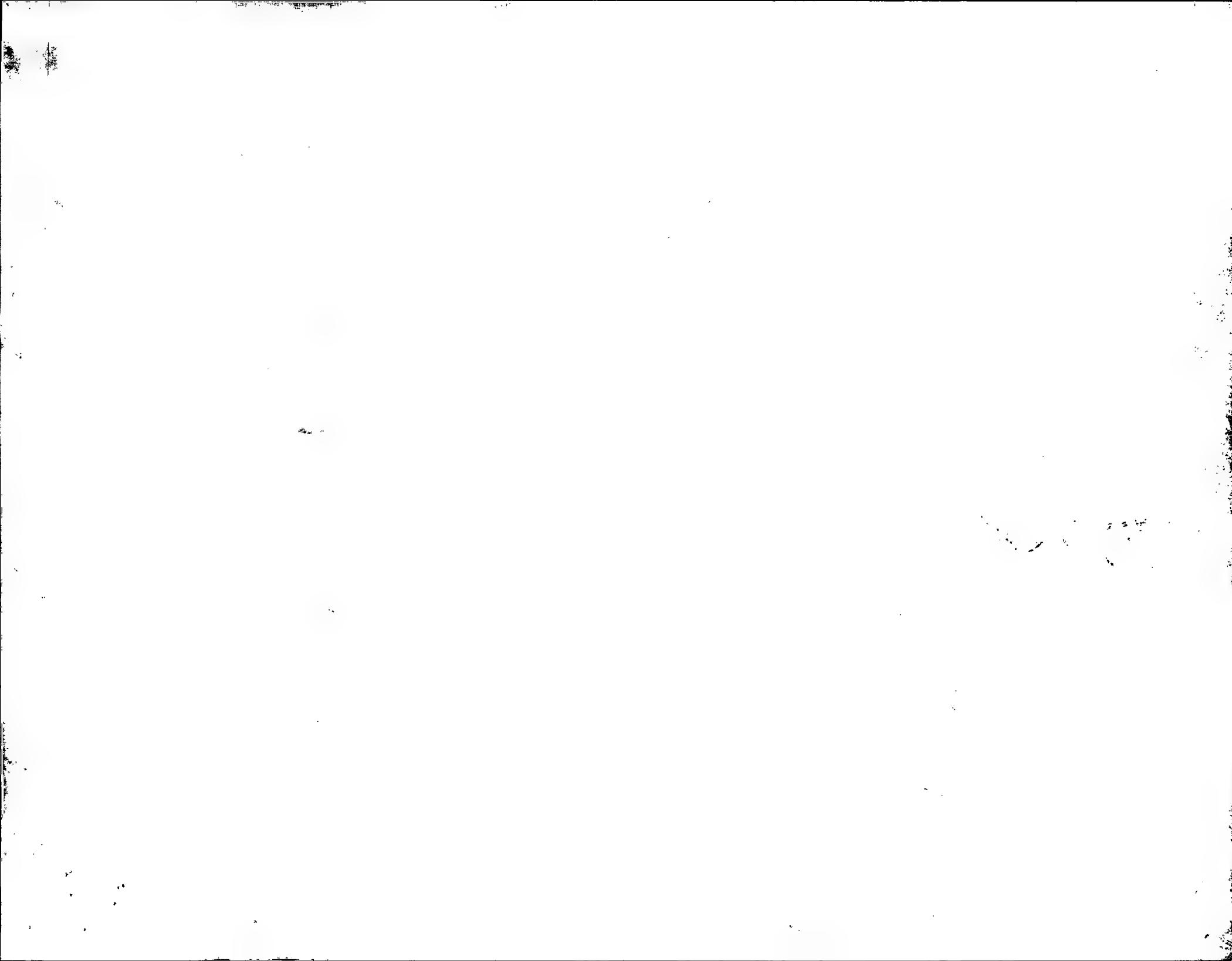
190 *190* Skidtubes Skidtubes	Skidtubes	0.00							
---	-----------	------	--	--	--	--	--	--	--

Memo	0.00								
1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod A/RAluminum Rod <i>m12x324</i>									

3-Grind cross bolt welds flush as per Dwg D3274.	→	<i>12/12/07/25</i>	<i>CF</i>	12-7-25					
--	---	--------------------	-----------	---------	--	--	--	--	--

4-Counterbore 5/16" x 0.750" deep as per Dwg D3274 and deburr.									
--	--	--	--	--	--	--	--	--	--

DD 12-7-26



NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: John Date: 12/08/17QA Closed: John Date: 12/08/20

Work Order: <u>85361</u> Part No. <u>D206-642-SY1</u> NCR No. <u>12-1696</u>				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input type="checkbox"/>	Skid-tube <input checked="" type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering			
				Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality			
				Use-as-is <input checked="" type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other			
				Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data					Found at inspection that the counter bores are too deep. Measured 0.820-0.840 should be 0.75 ± 0.30. L.C. employee didn't check setting for counter bore correctly. HOA.	<u>DAS 16-08-08</u> 12/1/27	Acceptable per attached Email from CP to DS on July 27 th , 2012. See attach.	<u>12-7-27</u>	<u>DAS 16-08-08</u> 12/10/2013	<u>DAS 16-08-08</u> 12/4/27	
Equip/Tooling	X										
Operator	X										
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											

FAULT CATEGORY

Landing Gear		General											
<input type="checkbox"/>	Bending	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Ovalized	<input checked="" type="checkbox"/>	Pressure/Forced				
<input type="checkbox"/>	Centre Not Concentric to O/S	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Temperature/Cure				
<input type="checkbox"/>	Cracks	<input type="checkbox"/>	Broken/Damaged	<input type="checkbox"/>	Inspection Incomplete	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Weld				
<input type="checkbox"/>	Crushed/Crimped.	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Wrong Stock Pulled				
<input type="checkbox"/>	Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Maintenance	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>					
<input type="checkbox"/>	Heat Treat	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>					
<input type="checkbox"/>	Inspection Strip in Tube	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Misread	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>	Other				
<input type="checkbox"/>	Ripples in Bend	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Offset								
<input type="checkbox"/>	Torque Waves in Extrusion	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Out of Calibration								
<input type="checkbox"/>	Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Sequence								
<input type="checkbox"/>	Wave/Twist in Tube	<input type="checkbox"/>	Folio	<input type="checkbox"/>	Outside Dimensions								

Linda Lacelle

From: Chris Provencal <cprovencal@dartaero.com>
Sent: July-27-12 11:15 AM
To: David Shepherd
Cc: psmith@dartaero.com; 'L Lacelle'; 'Isam El-Kassis'; 'Eric Downing'; Mike Petsche
Subject: RE: D206 skids

David,

The affected tubes are several float (-541) and regular tubes (-351). The float holes aren't counterbored and are unaffected. As the crossbolt spacers are not loaded except in bearing by the bushings, the additional length of the counterbore would have no effect on the strength of the crossbolt spacer from regular loading conditions. There would be a small reduction in buckling strength from sideways crushing loads, which doesn't represent a critical loading condition per the FAR requirements.

I will accept these tubes based on that rational. This email is an FYI in case you have an objection.

-Chris

From: Eric Downing [<mailto:edowning@dartaero.com>]
Sent: Friday, July 27, 2012 8:34 AM
To: 'Provencal, Chris'
Cc: psmith@dartaero.com; 'L Lacelle'; Isam El-Kassis
Subject: D206 skids
Importance: High

Good morning Chris

I need to see you as soon as you read this message I have found the counter bore depth on QTYX9 D206 skids are too deep. I am measuring 0.820"-0.830" and it should be at 0.75+/-0.030". I have 6 in progress and 3 already painted and assembled. What happened was that I had inspected some 206 skids and found that the counter bore was correct but I didn't know that they had changed the counter bore part way through the day and was not set up correctly so I had assumed that they were still the same depth and when I measured the first one today like I do always the depth was not correct at all.

I need to know if this will be acceptable or that we need to rework all the skids.

Thanks
Eric Downing
QC Corrdinator
Dart Aerospace LTD

NCR: Yes / No

DQA: Date:

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>				
Part No. _____											
NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear			General								
Bending	Bend	Grain	Ovalized	Pressure/Forced							
Centre Not Concentric to O/S	BOM/Route	Hardware	Over/Under tolerance	Temperature/Cure							
Cracks	Broken/Damaged	Inspection Incomplete	Part Incorrect	Weld							
Crushed/Crimped.	Burrs	Instructions Incomplete/Unclear	Part Lost/Missing	Wrong Stock Pulled							
Cuffs	Contamination	Maintenance	Part Moved								
Heat Treat	Countersink	Mislabeled	Positioned Wrong								
Inspection Strip in Tube	Cut Too Short	Misread	Power Loss/Surge								
Ripples in Bend	Drill Holes	Offset									
Torque Waves in Extrusion	Drawing	Out of Calibration									
Turning Sequence	Finish	Out of Sequence									
Wave/Twist in Tube	Folio	Outside Dimensions									

Work Order ID 85361

June-06-12 4:23:08 PM

85361

Page 7

Item ID: D206-642-541

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Replacement Skidtube

Stop

NS2

Start Date: 06/06/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 15/06/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____

Date: _____

Tooling:

Date: _____

Run

Start

NR1

QC: _____

Date: _____

SPC (Y/N):

Date: _____

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

200

QC5- Inspect part completeness to step on W/O

0.00

DAS
16
8-89

1714100

200

QC

Quality Control

210

QC10- Inspect visual per QSI004- ground welds

0.00

DAS
16
8-89

1714130

210

QC

Quality Control

220

Pressure Wash per QSI005 4.3

0.00

220

HandFinish

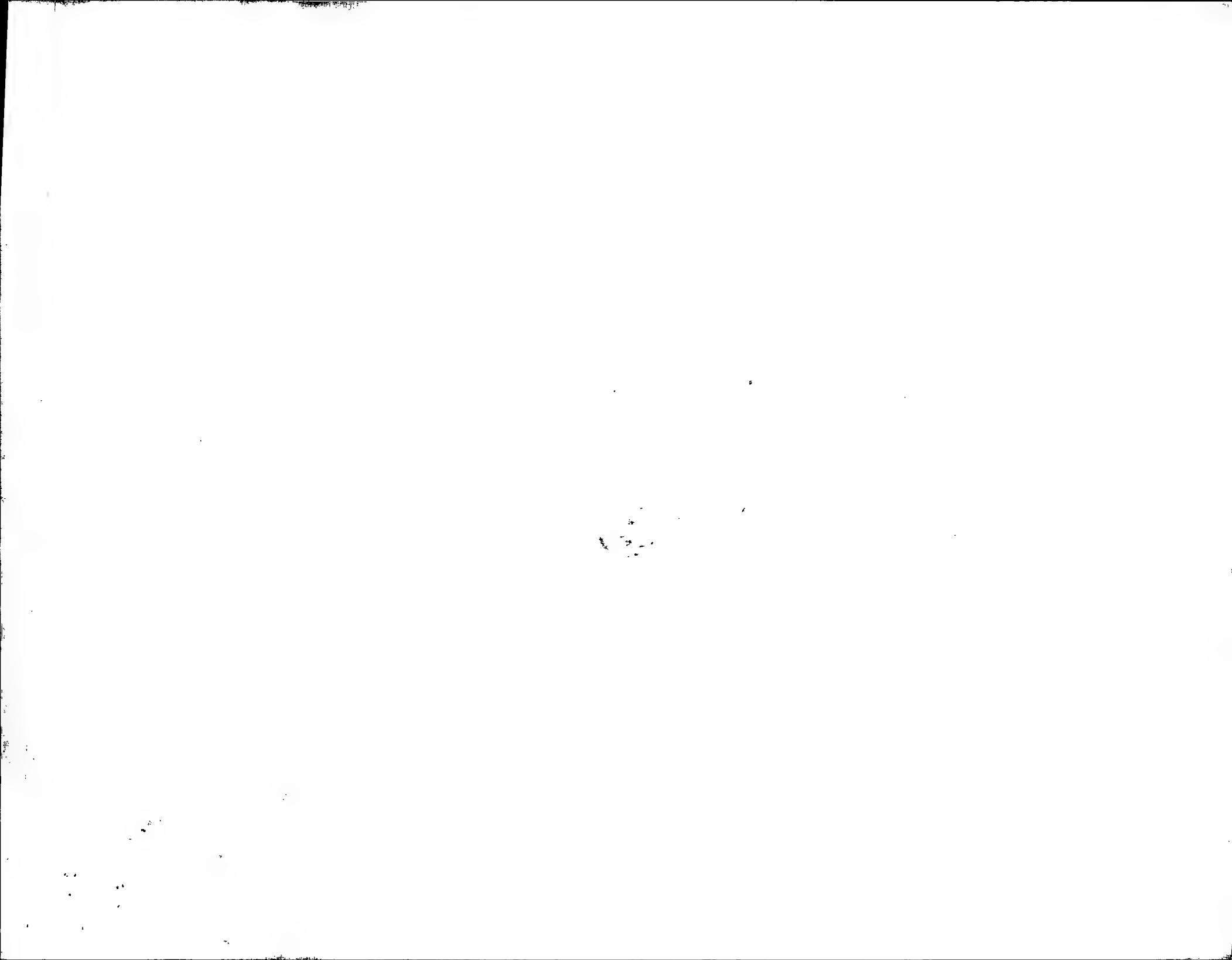
Hand Finishing

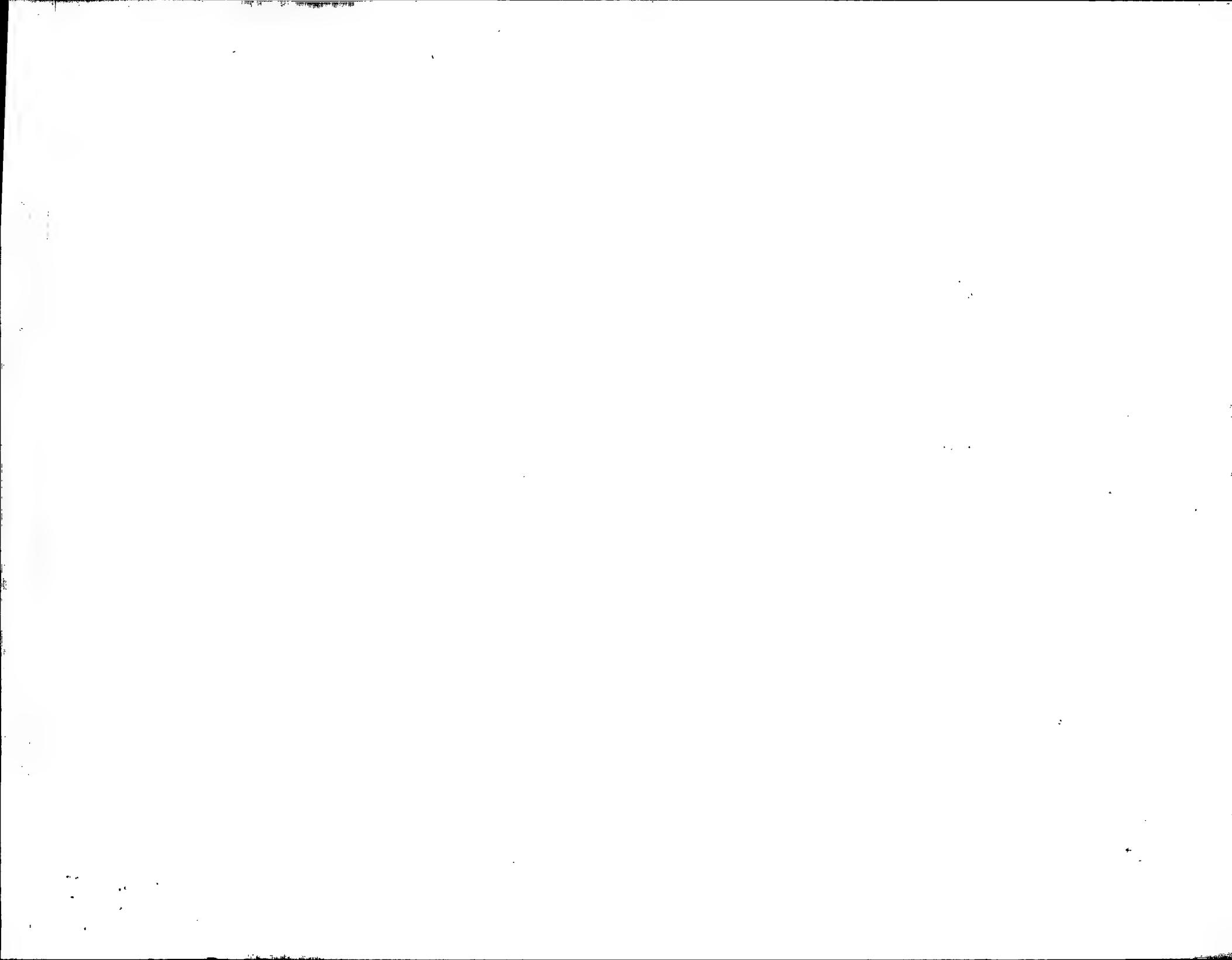
Memo

0.00

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch

1 16 12-7-30





Work Order ID 85361

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Page 9

Item ID: D206-642-541

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Replacement Skidtube

Stop

NS2

Start Date: 06/06/2012 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 15/06/2012 **Req'd Qty:** 1.00 ***1***

Customer:

Reference:

Approvals:	Process Plan: _____	Date: _____	Tooling: _____	Date: _____	Run	Start	*NR1*
	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____	Stop		*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260 *260* QC	QC5- Inspect part completeness to step on W/O Quality Control	0.00 0.00	DAS 16 S-89	r7ug101			6		

270

270

HandFinish

Hand Finishing

HAND FINISHING RESOURCE #1

0.00

() & (PP) 12/08/01

Memo

0.00

1-Install wearpads & gaskets as per Dwg D3274.

2-Install ring as per Dwg D3274

A/RSikaflex-291 122130

Sikaflex expire date: 14/03

3-Inspect for foreign objects as per QSI 024

4-Spray inside of tube on both sides of web with LPS-3

A/R LPS-3 Batch: N/14

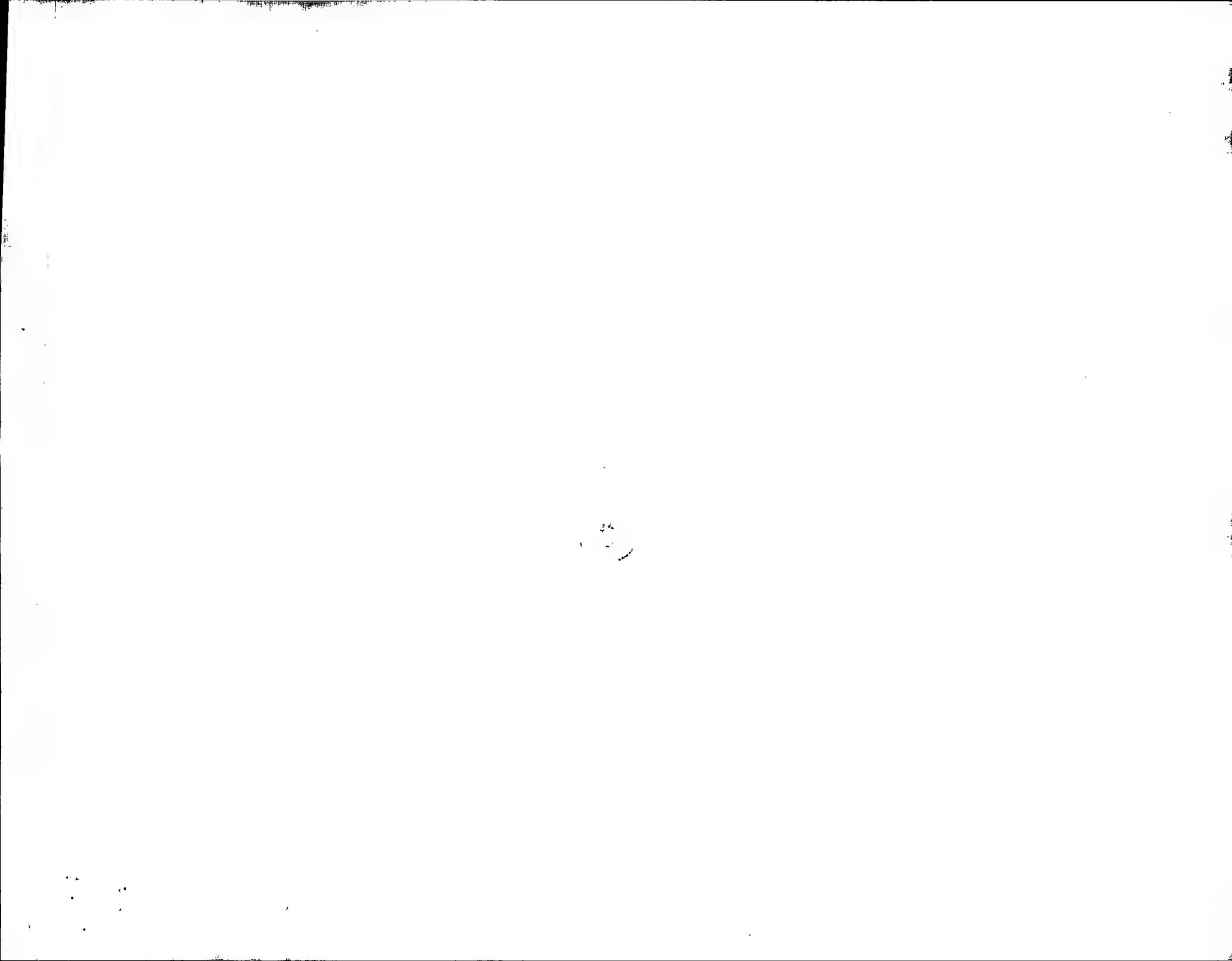
5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.

A/RSikaflex-291 122130

Sikaflex expire date: 14/03

Procy on

114 596



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Item ID: D206-642-541

Accept

Revision ID:

Item Name: Replacement Skidtube

Start Date: 06/06/2012 **Start Qty:** 1.00

1

Required Date: 15/06/2012 **Req'd Qty:** 1.00

1

Reference:

Approvals: Process Plan:

Date: _____

Tooling:

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N):

Date: _____

Stop

NR2

**Sequence ID/
Work Center ID**

**Operation
Description**

280

QC5- Inspect part completeness to step on W/O

280

QC

Quality Control

Set Up/
Run Hours

0.00

0.00
9-8

DAC 16/10/12

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

290

Identify as per dwg & Stock Location: _____

0.00

290

Packaging

Packaging

PP

88741

12/8/16 SP

300

QC21- Final Inspection - Work Order Release

0.00

300

QC

Quality Control

Memo

0.00

12/8/16 DJ

NLJ 12/08/14

Picklist Print

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Page 1

Work Order ID: 85361

85361
D206-642-541

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 06/06/2012

Required Date: 15/06/2012

Start Qty: 1.00

Required Qty: 1.00

Comments:

- IPP Rev:B05.09.23Revised per D206-642 Rev. JKJ/JLM
- IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM
- IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD
- IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC
- IPP Rev:F 08-06-02 add comment DD verified by:EC
- IPP Rev:G 08-10-09 revise details DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-1-190		Manufactured	No			110	Each	106.0000	1	1	**	DC 12/07/14	

D2600-1-190

Extrusion Round 3" 206

Location	Loc Qty	Loc Code
HALL	45	
69622	45	
LG	61	
76912	61	(1)

D3285-1

D3285-1

Cap

Location	Loc Qty	Loc Code
LG002	42	
52511	1	
52647	41	1

D3282-041

D3282-041

Float Web (206L/407)

Location	Loc Qty	Loc Code
LG	9	
82651	9	(1)

DC 12/07/17

AE 12-07-16

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Use-as-is <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Machining <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Engineering Quality <input type="checkbox"/>	
			Work Order Update <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Supplier <input type="checkbox"/>	Other <input type="checkbox"/>	
Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data	<input type="checkbox"/>										
Equip/Tooling	<input type="checkbox"/>										
Operator	<input type="checkbox"/>										
Material	<input type="checkbox"/>										
Offset/Setup	<input type="checkbox"/>										
Other	<input type="checkbox"/>										
Process	<input type="checkbox"/>										
Supplier	<input type="checkbox"/>										
Training	<input type="checkbox"/>										
Unauthorized	<input type="checkbox"/>										
FAULT CATEGORY											
Landing Gear	Hardware			General							
	Bending Passes Below Min	<input type="checkbox"/>	Breaking <input type="checkbox"/>	Burrs <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Set-up <input type="checkbox"/>					
	Centre Not Concentric to O/S	<input type="checkbox"/>	Missing <input type="checkbox"/>	Contamination <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Supplier <input type="checkbox"/>					
	Cracks <input type="checkbox"/>	<input type="checkbox"/>	Size/Length <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Off-Set <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>					
	Crushed/Crimp at Bending <input type="checkbox"/>	<input type="checkbox"/>	Spinning <input type="checkbox"/>	Documentation/Data <input type="checkbox"/>	Orientation Misread <input type="checkbox"/>	Weld <input type="checkbox"/>					
	Inspection Strip in Tube <input type="checkbox"/>	<input type="checkbox"/>	Threading <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>					
	Other <input type="checkbox"/>	<input type="checkbox"/>	Wrong <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>	Other <input type="checkbox"/>					
	Positioned Wrong <input type="checkbox"/>	<input type="checkbox"/>	Drill Holes			Outside Dimensions <input type="checkbox"/>					
	Ripples on Inner Bend <input type="checkbox"/>	<input type="checkbox"/>	Misaligned <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>						
	Torque Waves in Extrusion <input type="checkbox"/>	<input type="checkbox"/>	Ovalized <input type="checkbox"/>	Jigs/Fixtures/Tooling <input type="checkbox"/>	Part Lost <input type="checkbox"/>						
	Turning Sequence <input type="checkbox"/>	<input type="checkbox"/>	Over/Undersized <input type="checkbox"/>	Kit Incorrect <input type="checkbox"/>	Part Moved <input type="checkbox"/>						
	Wave/Twist in Tube <input type="checkbox"/>	<input type="checkbox"/>	Too Many <input type="checkbox"/>	Kit Missing <input type="checkbox"/>	Raw Material <input type="checkbox"/>						

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Page 2

Work Order ID: 85361

85361
D206-642-541

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 06/06/2012

Start Qty: 1.00

Required Date: 15/06/2012

Required Qty: 1.00

D2649

Manufactured No

190

Each

379.0000

12

12

**

D2649

Cross Bolt Spacer

BE 06/7/25
D 86912 *12

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG	236	
77574	2	
79502	8	
79503	215	
79564	4	
79565	7	
LG001	143	
65317	1	
68224	2	
68507	11	
71355	2	
72704	2	
72841	11	
73390	8	
73857	21	
73858	53	
73859	4	
73860	4	
78020	6	
78583	2	
79566	16	

D3275-1

Manufactured No

190

Each

65.0000

12

12

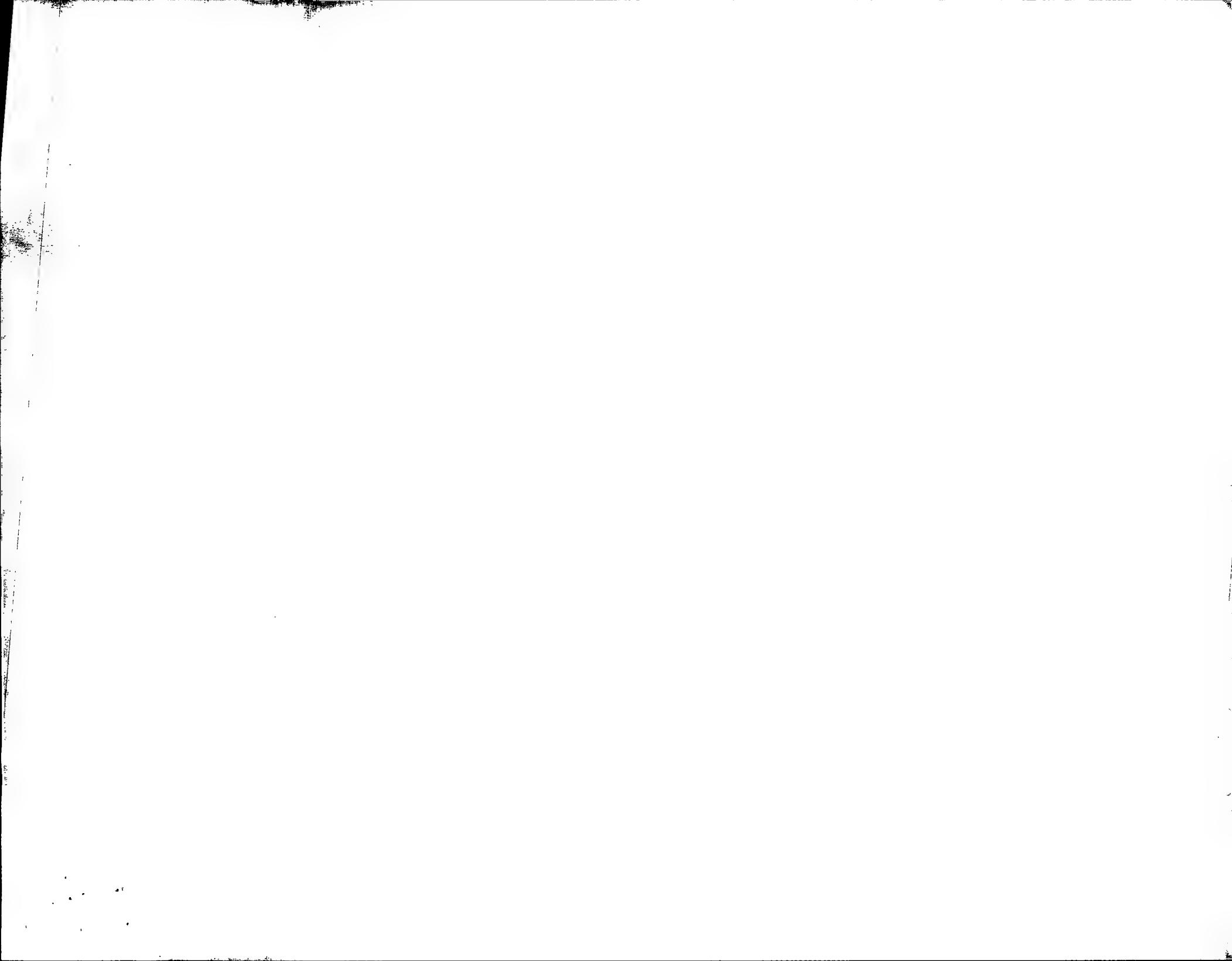
**

D3275-1

Crossbolt Spacer

BE 12/07/25
B 85418 *12

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG002	65	
66930	1	
83264	64	



NCR: Yes / No

DOA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS						
			Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Use-as-is <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Engineering <input type="checkbox"/>			
			Work Order Update <input type="checkbox"/>			Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Quality <input type="checkbox"/>			
						Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Supplier <input type="checkbox"/>	Other <input type="checkbox"/>			
						Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data												
Equip/Tooling												
Operator												
Material												
Offset/Setup												
Other												
Process												
Supplier												
Training												
Unauthorized												
FAULT CATEGORY												
Landing Gear <input type="checkbox"/> Bending Passes Below Min <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimp at Bending <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Other <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Ripples on Inner Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				Hardware <input type="checkbox"/> Breaking <input type="checkbox"/> Missing <input type="checkbox"/> Size/Length <input type="checkbox"/> Spinning <input type="checkbox"/> Threading <input type="checkbox"/> Wrong Drill Holes <input type="checkbox"/> Misaligned <input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Undersized <input type="checkbox"/> Too Many			General <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Documentation/Data <input type="checkbox"/> Finish <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Inspection Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Jigs/Fixtures/Tooling <input type="checkbox"/> Kit Incorrect <input type="checkbox"/> Kit Missing				<input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Off-Set <input type="checkbox"/> Orientation Misread <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Lost <input type="checkbox"/> Part Moved <input type="checkbox"/> Raw Material	
											<input type="checkbox"/> Set-up <input type="checkbox"/> Supplier <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	
											<input type="checkbox"/> Other	

Picklist Print

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Page 3

Work Order ID: 85361***85361***
D206-642-541**Parent Item:** D206-642-541**Parent Item Name:** Replacement Skidtube**Start Date:** 06/06/2012**Required Date:** 15/06/2012**Start Qty:** 1.00**Required Qty:** 1.00

CR3212-4-03

Purchased

No

250

Each

1,276.000

2

2

**

2

(2)

12/08/01

CR3212-4-03

Cherry Rivet

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP002	348	
114859 ✓	348	
ST331	928	
110139	2	
119017	926	

D3415-041

Manufactured

No

250

Each

32.0000

1

1

**

1

(2) 12/08/01

D3415-041

Nut Plate

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST042	32	
67605 ✓	1	
82151 ✓	31	

CCR264SS3-3

Purchased

No

250

Each

346.0000

2

2

**

2

(2) 12/08/01

CCR264SS3-3

Cherry Rivet

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST331	346	
113973	2	
117849 ✓	79	
119017	265	

Picklist Print

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Page 4

Work Order ID: 85361

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

85361
D206-642-541

Start Date: 06/06/2012

Required Date: 15/06/2012

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-130

Purchased

No

250

Each

2,185.000

78

78

**

78

(SP)

12/08/01

AI S4-1032-130

Insert

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST280	122474	205
-------	--------	-----

	119084	116
--	--------	-----

	120671	89
--	--------	----

ST281		74
-------	--	----

	120807	36
--	--------	----

	120837	38
--	--------	----

ST282		1906
-------	--	------

	121269	1906
--	--------	------

D3536-15

Manufactured

No

270

Each

6.0000

1

1

**

(SP)

12/08/01

D3536-15

Gasket

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP002	85604V	6
-------	--------	---

	73318	4
--	-------	---

	81343	2
--	-------	---

D3536-23

Manufactured

No

270

Each

4.0000

1

1

**

(SP)

12/08/01

D3536-23

Gasket

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP002		4
-------	--	---

	74510	1
--	-------	---

	83377	3
--	-------	---

85295

Picklist Print

June-06-12 4:23:13 PM

Page 5

Work Order ID: 85361***85361***
D206-642-541**Parent Item:** D206-642-541**Parent Item Name:** Replacement Skidtube**Start Date:** 06/06/2012**Required Date:** 15/06/2012**Start Qty:** 1.00**Required Qty:** 1.00

D3536-35

Manufactured No 270 Each 16.0000 1 1

1

12/08/01

D3536-35

Gasket

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP002 85605 ✓	16	
81340	5	
82065	11	

D3536-39

Manufactured No 270 Each 10.0000 1 1

1

12/08/01

D3536-39

Gasket

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP 82252 ✓	9	
FP002 73317	1	
	1	

D3535-15

Manufactured No 270 Each 3.0000 1 1

1

12/08/01

D3535-15

Wearshoe

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001 80328	3	
81354	1	
	2	

85291 ✓

Picklist Print

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Page 6

Work Order ID: 85361

85361
D206-642-541

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 06/06/2012

Start Qty: 1.00

Required Date: 15/06/2012

Required Qty: 1.00

D3535-35

Manufactured No

270

Each

29.0000

1

1

**

D3535-35

Wearshoe

(P) 12/08/01

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	29	
67598	1	
70815	1	
78873	13	
79849	1	
82064	1	
83638 ✓	12	

D3535-39

Manufactured No

270

Each

22.0000

1

1

**

D3535-39

Wearshoe

(P) 12/08/01

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	22	
69759	1	
74513	3	
81359 ✓	18	

D3535-23

Manufactured No

270

Each

9.0000

1

1

**

D3535-23

Wearshoe

(P) 12/08/01

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	9	
81355	1	
83375	8	

85256 ✓

Picklist Print

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Page 7

Work Order ID: 85361

85361

Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 06/06/2012

Required Date: 15/06/2012

Start Qty: 1.00

Required Qty: 1.00

D3537-3

Manufactured

No

270

Each

8.0000

1

1

**

( 12/08/01

D3537-3

Wearpad

Location	Loc Qty	Loc Code
FP002 85481✓	8	
78836	2	
81363	6	

D3537-1

Manufactured

No

270

Each

28.0000

9

9

**

( 12/08/01

D3537-1

Wearpad

Location	Loc Qty	Loc Code
FP002 86238✓	28	
81362	15	
83254	1	
83255	3	
84091	9	

AN960C10L

* NAS1149C0332 ✓ Purchased R

No

85458✓

270

Each

0.0000

80

80

*AN960C10L *

washer

**

( 12/08/01

AN960C416

* NAS1149C0463 ✓ Purchased R

No

122063✓

270

Each

0.0000

1

1

**

( 12/08/01

AN960C416

washer

119097✓

Picklist Print

June-06-12 4:23:13 PM

Page 8

Work Order ID: 85361

85361
D206-642-541

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 06/06/2012

Required Date: 15/06/2012

Start Qty: 1.00

Required Qty: 1.00

D3672-1

Manufactured No

270

Each

1,040.000

2

2

**

2

(28)

12/08/01

D3672-1

Phenolic Washer

Location	Loc Qty	Loc Code
ST060	1040	
72229	4	
76277	36	
80369 ✓	500	
83608	500	

AN3C4A

Purchased No

270

Each

1,262.000

80

80

**

80

(28)

12/08/01

AN3C4A

BOLT

Location	Loc Qty	Loc Code
ST350 i22151✓	1262	
120187	57	
120521	28	
120769	38	
121205	900	
121556	239	

AN4C5A

Purchased No

270

Each

195.0000

1

1

**

1

(28)

12/08/01

AN4C5A

BOLT

Location	Loc Qty	Loc Code
ST355	195	
112243	136	
119017✓	59	

Picklist Print

June-06-12 4:23:13 PM

Page 9

Work Order ID: 85361**Parent Item:** D206-642-541**Parent Item Name:** Replacement Skidtube***85361***
D206-642-541**Start Date:** 06/06/2012**Start Qty:** 1.00**Required Date:** 15/06/2012**Required Qty:** 1.00

D2646

Manufactured

No

270

Each

65.0000

1

1

**

1

(28)

12/08/01

D2646
Aft CapLocation Loc Qty Loc Code

FP002	85443✓	65	
62678		5	
68280		5	
70945		1	
71070		2	
73294		1	
73825		2	
78018		1	
79562		10	
81974		38	

D3413-1

Manufactured

No

270

Each

69.0000

1

1

**

1

(28)

12/08/01

D3413-1
RingLocation Loc Qty Loc Code

ST420		4	
	79233	4	
ST464		65	
	76754	1	
	80224	4	
	83307	40	
	83867	20	

87253✓

DART

DESIGN CP	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED #	APPROVED #	DRAWING NO. D3274	REV. D SHEET 1 OF 4
DATE 06.12.19		TITLE SKIDTUBE ASSEMBLY	SCALE NTS
A	04.03.15	NEW ISSUE	
B	04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76	
C	05.03.16	ADD -043; NEW INSERTS	
D	06.12.19	NEW INSERTS, SS WEARSHOE + GASKET	

RELEASED

07.02.12 #

DEO ATTACHED

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AEIS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

GENERAL NOTES:

1. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
2. DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
3. ALL HOLES DRILLED ON CENTERLINES.
4. BOND D3282-041 FLOAT WEB INTO D3274-1/-3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
5. WELDING TO BE DONE PER DART QSI 004.
6. FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
7. DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLX -241-291.
8. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. **85361 MJS**

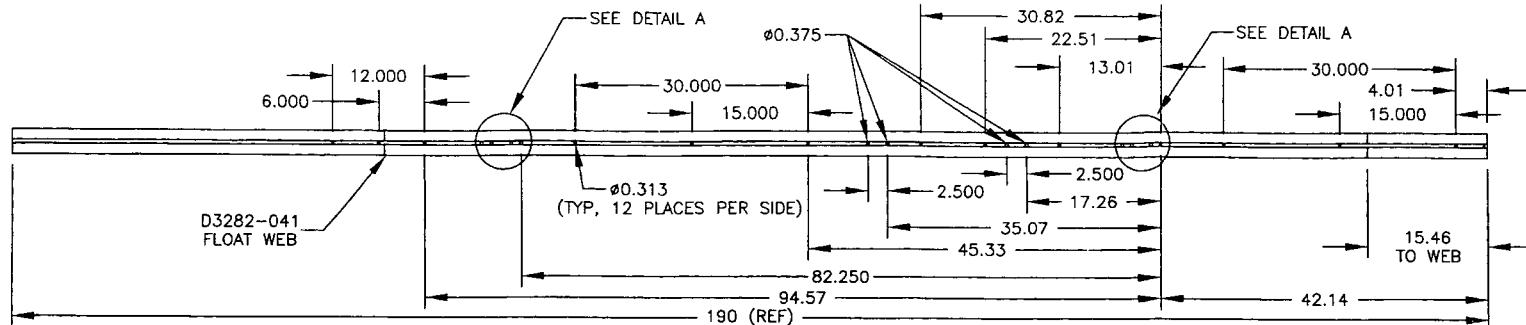
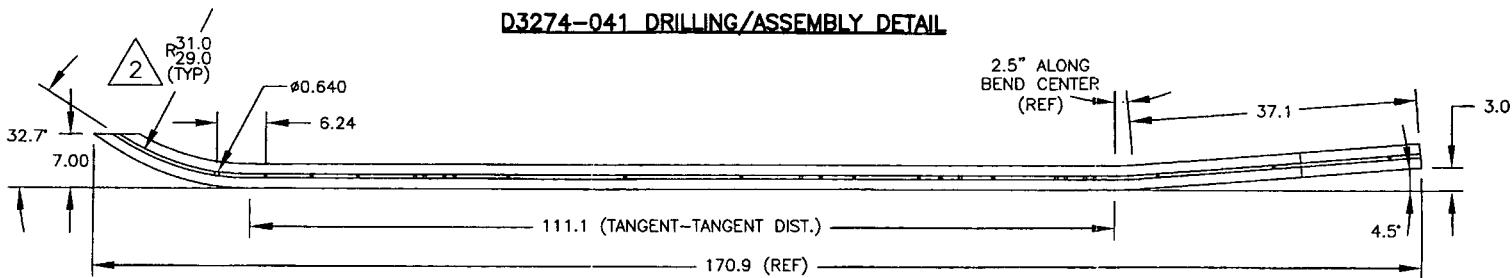
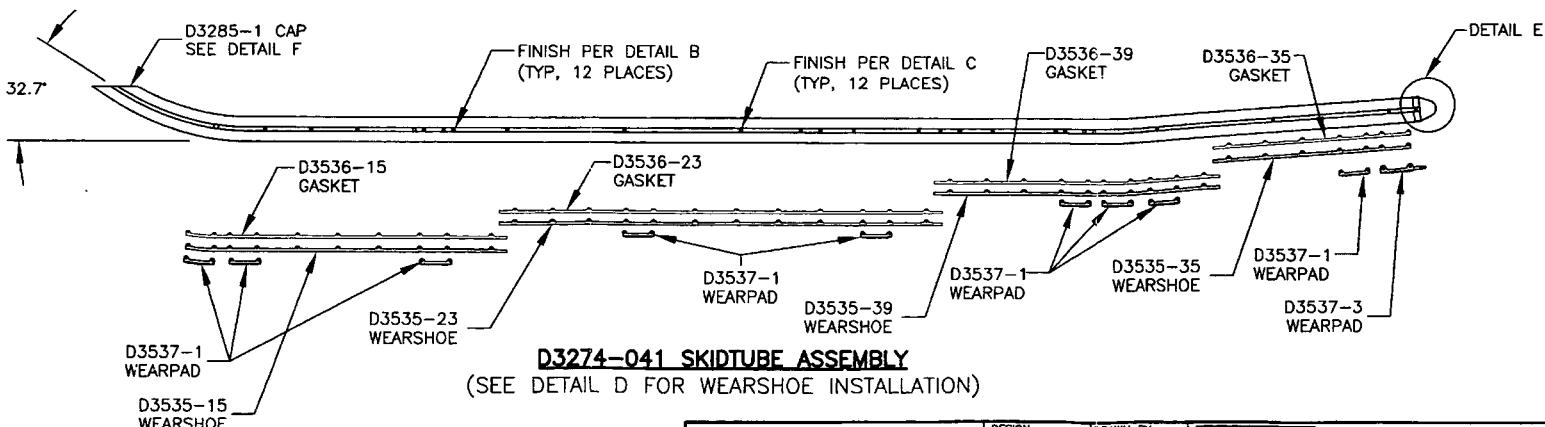
RETURN TO
ENGINEERING
12/06/07

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85361

DEO ATTACHED

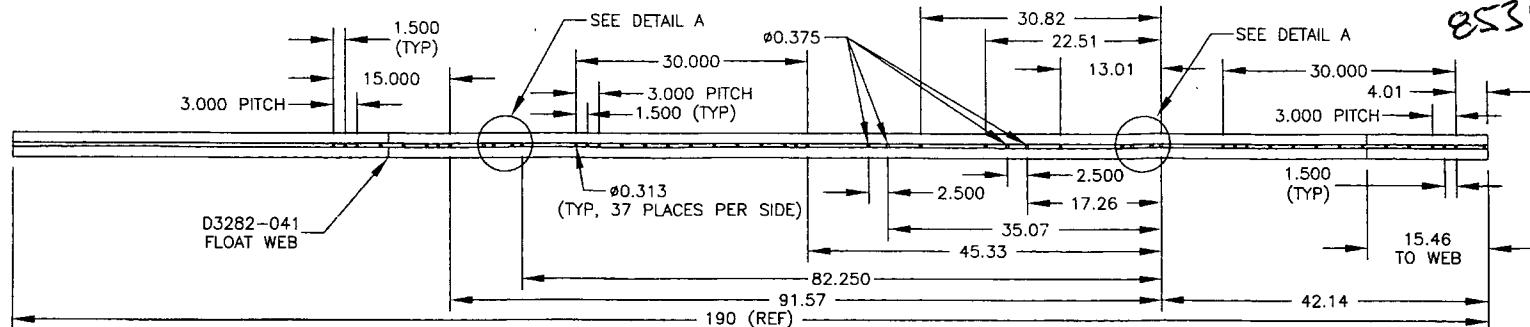
**D3274-041 DRILLING/ASSEMBLY DETAIL****D3274-041 BEND/DRILLING DETAIL****D3274-041 SKIDTUBE ASSEMBLY**
(SEE DETAIL D FOR WEARSHOE INSTALLATION)RELEASED
07.02.12

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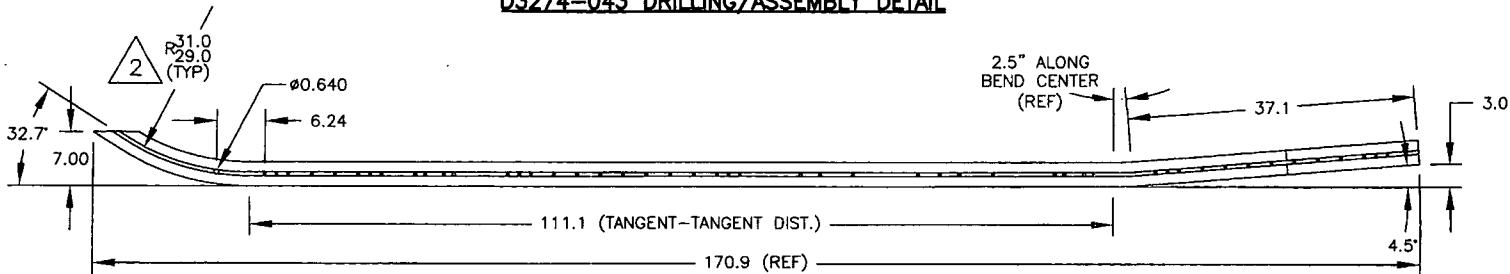
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CP	PH		REV. D
CHECKED	APPROVED	#	DRAWING NO. D3274
DATE		06.12.19	TITLE SKIDTUBE ASSEMBLY
			SCALE 1:15

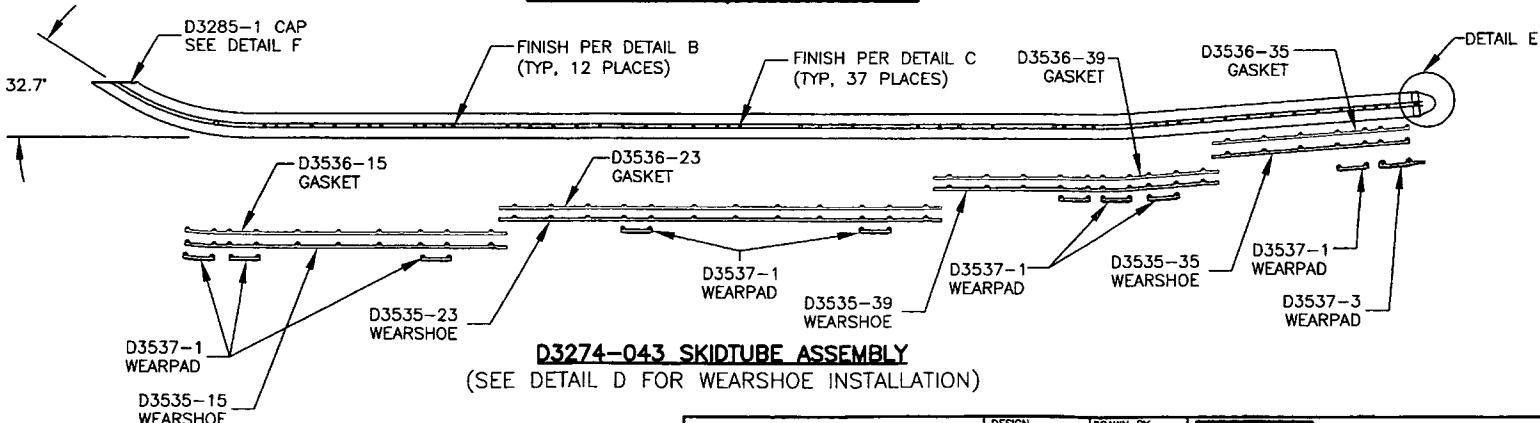
DEO ATTACHED



D3274-043 DRILLING/ASSEMBLY DETAIL



D3274-043 BEND/DRILLING DETAIL



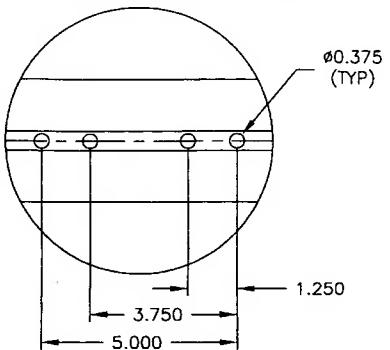
D3274-043 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

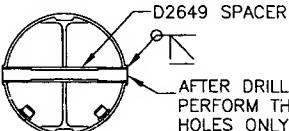
07.02.12

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	DATE 06.12.19	TITLE SKIDTUBE ASSEMBLY		

DETAIL A: DRILL DETAIL



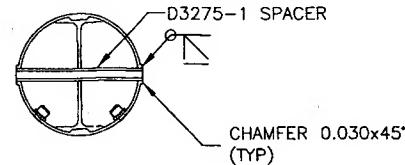
DETAIL B
FOR Ø0.375 HOLES ONLY



AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.375
HOLES ONLY:

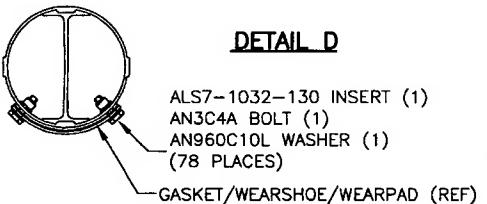
1. CHAMFER HOLE 0.030x45°
2. INSERT D2649 SPACER
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE TO Ø0.313x0.75 DEEP

DETAIL C
FOR Ø0.313 HOLES ONLY

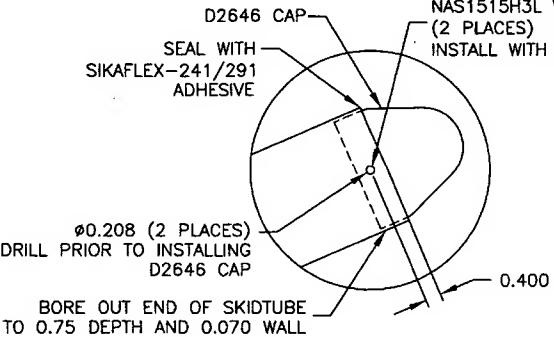


o53 b1

DETAIL D



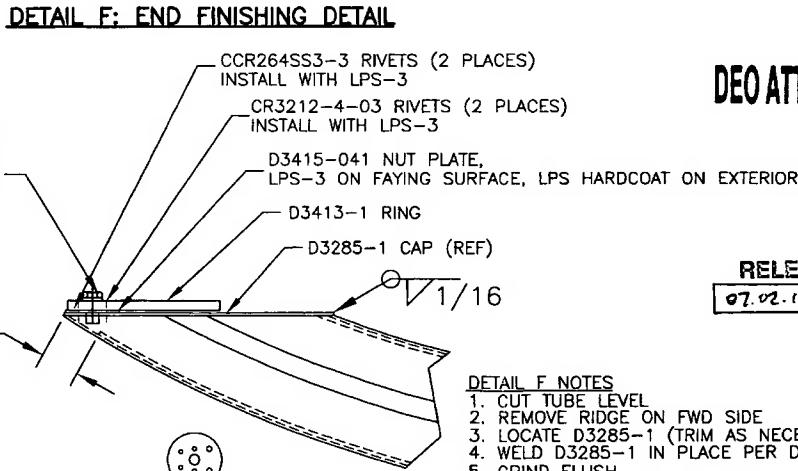
DETAIL E
AN3C4A BOLT (1)
AN960C10L WASHER (1)
NAS1515H3L WASHER (1)
(2 PLACES)
INSTALL WITH SIKAFLEX-241/-291



AN4C5A BOLT (1)
AN960C416 WASHER (1)
INSTALL WITH SIKAFLEX-241/-291

1.0
REMOVE RIDGE
ON INSIDE OF
SKIDTUBE LEAVE
0.070 MIN.

ORIENTATION
OF D3415-041



DET ATTACHED

RELEASED

07.02.12

DETAIL F NOTES

1. CUT TUBE LEVEL
 2. REMOVE RIDGE ON FWD SIDE
 3. LOCATE D3285-1 (TRIM AS NECESSARY)
 4. WELD D3285-1 IN PLACE PER DART QSI 004
 5. GRIND FLUSH
 6. RIVET D3415-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

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CP	PH		
CHECKED	APPROVED		DRAWING NO. D3274
DATE			REV. D SHEET 4 OF 4 TITLE SKIDTUBE ASSEMBLY SCALE 1:5
06.12.19			

85361

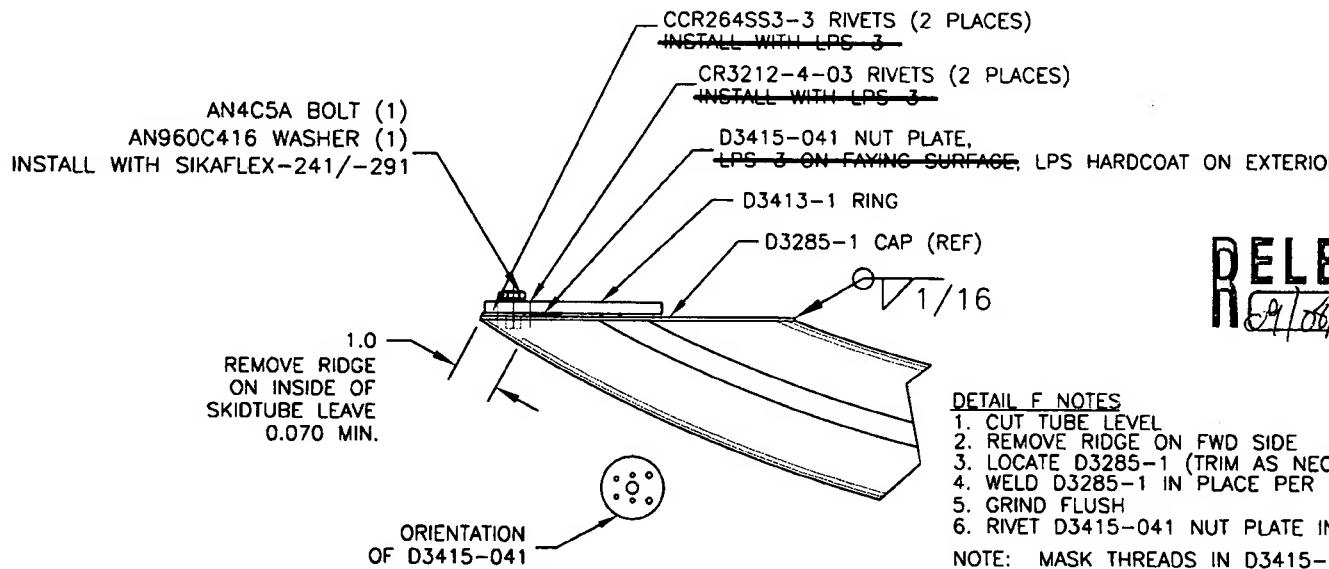
DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>CP</i>	CHECKED <i>LB</i>	MFG. APPR. <i>M</i>	APPROVED <i>NAP</i>	DE APPR. <i>#</i>		
DATE 09.06.17	DATE 09.06.23	DATE 09/06/23	DATE 09/06/23	DATE 09.06.23	DATE 09.06.23	

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: "~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS 3' AFTER FINISH AND INSTALLATION OF INSERTS.~~
~~COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER."~~

AMEND DETAIL F AS SHOWN:

DETAIL F: END FINISHING DETAIL



NO. 299

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job #: B85361
Part #: A206-642-541
Description: Skid
Welding Process: Tig Mig
Base materiel: Alum.
Current: AC DC

TEST REQUIREMENTS AND RESULTS

Visual:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Incomplete Penetration:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Incomplete Fusion:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Cracks:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Overlap (cold lap)	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Undercut:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Pin holes:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Porosity (surface):	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Coloration:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Burn through:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>

Qualifier David Jewell Date of Test Coupon 12-07-26

Welder Barclay Elliott Date of Test Coupon 12-07-26

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

